

SECTION 3 – COMMISSIONING AND MAINTENANCE

A. General

1. The complex interrelated building systems of today and the emphasis on indoor air quality and energy conservation, combined with owners, sometimes not receiving buildings that work well, warrant an enhancement to the building delivery process. Commissioning offers just such an enhancement, one that can be integrated into the current design and construction delivery process. The result is systems that work completely when turned over to the owner.
2. Commissioning is a systematic process of ensuring that all building components and systems are expertly designed and perform according to the contract documents, owner's objectives and operational needs. Ideally, this is achieved by developing and documenting owner project requirements beginning in the pre-design phase; continuing through design, with reviews of design and contract documents; and continuing through construction and the warranty period with actual verification through review, testing and documentation of performance, including ensuring that operations personnel receive adequate training and system documentation.
3. The systems that should be considered for commissioning for buildings exceeding twenty thousand (20,000) square feet shall include the following:
 - a. HVAC system
 - b. Building control system
 - c. Life safety systems
 - d. Lighting system and controls
 - e. Glass and glazing systems
 - f. Specialty equipment – elevator, generator
 - g. Roofing system
 - h. Voice/data infrastructure

B. Commissioning Activities

1. Commissioning services may include:
 - a. documenting the owner's commissioning requirements;
 - b. developing specific Commissioning Plans as the project progresses;
 - c. working with designers to developing the commissioning specification;
 - d. reviewing the design documents at various intervals as they are prepared;
 - e. reviewing selected shop drawings and specific equipment submittals with designers as they are integral with the commissioning process;
 - f. working with designers in developing acceptance procedures;
 - g. working with designers in developing training requirements;
 - h. organizing and leading the commissioning team;
 - i. developing a schedule for construction and acceptance phase commissioning activities that is coordinated with the overall project schedule;
 - j. performing on-site observations during construction;
 - k. participate in the acceptance tests, including verification and functional performance tests;
 - l. organizing and monitoring the training of O&M personnel;
 - m. reviewing the contractors' final systems operation and maintenance manual;
 - n. preparing and submitting a commissioning report;
 - o. reviewing the final as-built records